

**PCT**

NOTIFICATION OF TRANSMITTAL  
OF COPIES OF TRANSLATION  
OF THE INTERNATIONAL PRELIMINARY REPORT  
ON PATENTABILITY  
(CHAPTER I OR CHAPTER II  
OF THE PATENT COOPERATION TREATY)  
(PCT Rules 44(b)(3)(c) and 72.2)

Date of mailing (*day/month/year*)  
26 October 2006 (26.10.2006)

Applicant's or agent's file reference  
665139

International application No.  
PCT/JP2005/005514

Applicant  
DAINIPPON SUMITOMO PHARMA CO., LTD. et al

From the INTERNATIONAL BUREAU

To:

KAWAMIYA, Osamu  
ACYAMA & PARTNERS  
IMP Building  
3-7, Shiromi 1-chome  
Chuo-ku, Osaka-shi  
Osaka, 5400001  
JAPON

**IMPORTANT NOTIFICATION****1. Transmittal of the translation to the applicant.**

- The International Bureau transmits herewith a copy of the English translation of the international preliminary report on patentability (Chapter I).
- The International Bureau transmits herewith a copy of the English translation of the international preliminary report on patentability (Chapter II).

**2. Transmittal of the copy of the translation to the designated or elected Offices.**

The International Bureau notifies the applicant that copies of that translation have been transmitted to the following designated or elected Offices requiring such translation:

None

The following designated or elected Offices, having waived the requirement for such a transmittal at this time, will receive copies of that translation from the International Bureau only upon their request:

AE, AG, AL, AM, AP, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EA, EC, EE, EG, EP, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OA, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

**3. Reminder regarding translation into (one of) the official language(s) of the elected Office(s).**

The applicant is reminded that, where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary report on patentability (Chapter II).

It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned within the applicable time limit (Rule 74.1). See Volume II of the PCT Applicant's Guide for further details.

## PATENT COOPERATION TREATY

## PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY  
(Chapter I of the Patent Cooperation Treaty)

(PCT Rule 44bis)

Applicant's or agent's file reference 665139	<b>FOR FURTHER ACTION</b>		See item 4 below
International application No. PCT/JP2005/005514	International filing date ( <i>day/month/year</i> ) 25 March 2005 (25.03.2005)	Priority date ( <i>day/month/year</i> ) 26 March 2004 (26.03.2004)	
International Patent Classification (8th edition unless older edition indicated) See relevant information in Form PCT/ISA/237			
Applicant DAINIPPON SUMITOMO PHARMA CO., LTD.			

1. This international preliminary report on patentability (Chapter I) is issued by the International Bureau on behalf of the International Searching Authority under Rule 44 bis.1(a).
2. This REPORT consists of a total of 6 sheets, including this cover sheet.

In the attached sheets, any reference to the written opinion of the International Searching Authority should be read as a reference to the international preliminary report on patentability (Chapter I) instead.

3. This report contains indications relating to the following items:

- |                                     |              |   |
|-------------------------------------|--------------|---|
| <input checked="" type="checkbox"/> | Box No. I    | Basis of the report   |
| <input type="checkbox"/>            | Box No. II   | Priority  |
| <input checked="" type="checkbox"/> | Box No. III  | Non-establishment of opinion with regard to novelty, inventive step and industrial applicability  |
| <input type="checkbox"/>            | Box No. IV   | Lack of unity of invention  |
| <input checked="" type="checkbox"/> | Box No. V    | Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement |
| <input checked="" type="checkbox"/> | Box No. VI   | Certain documents cited   |
| <input type="checkbox"/>            | Box No. VII  | Certain defects in the international application  |
| <input type="checkbox"/>            | Box No. VIII | Certain observations on the international application   |

4. The International Bureau will communicate this report to designated Offices in accordance with Rules 44bis.3(c) and 93bis.1 but not, except where the applicant makes an express request under Article 23(2), before the expiration of 30 months from the priority date (Rule 44bis.2).

Date of issuance of this report 19 October 2006 (19.10.2006)
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The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland  Facsimile No. +41 22 338 82 70	Authorized officer  Yoshiko Kuwahara  e-mail: pf07@wipo.int
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**PATENT COOPERATION TREATY**

From the  
INTERNATIONAL SEARCHING AUTHORITY

To:

*TRANSLATION*

**PCT**

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

(PCT Rule 43(b)(1))

Applicant's or agent's file reference <b>665139</b>		Date of mailing (dd/month/year)	
		FOR FURTHER ACTION See paragraph 2 below	
International application No. <b>PCT/JP2005/005514</b>	International filing date (dd/month/year) <b>25.03.2005</b>	Priority date (dd/month/year) <b>26.03.2004</b>	
International Patent Classification (IPC) or both national classification and IPC			
Applicant <b>DAINIPPON SUMITOMO PHARMA CO., LTD.</b>			

1. This opinion contains indications relating to the following items:

- Box No. I Basis of the opinion
- Box No. II Priority
- Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- Box No. IV Lack of unity of invention
- Box No. V Reasoned statement under Rule 43(b)(1)(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- Box No. VI Certain documents cited
- Box No. VII Certain defects in the international application
- Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1(b)(1) that written opinions of the International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/JPO	Authorized officer
Facsimile No.	Telephone No.

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No.  
PCT/JP2005/005514

Box No. I Basis of this opinion

1. With regard to the language, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item:
- This opinion has been established on the basis of a translation from the original language into the following language: \_\_\_\_\_, which is the language of a translation furnished for the purposes of international search (under Rule 12.3 and 23, I(b)).
2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
- a. type of material:  
 a sequence listing  
 table(s) related to the sequence listing
  - b. format of material:  
 in written format  
 in computer readable form
  - c. time of filing/furnishing:  
 contained in the international application as filed.  
 filed together with the international application in computer readable form.  
 furnished subsequently to this Authority for the purposes of search.
3.  In addition, in the case that more than one version or copy of a sequence listing and/or table(s) relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No.  
PCT/JP2005/005514

Box No. III

Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

The questions whether the claimed invention appears to be novel, to involve an inventive step to be non obvious, or to be industrially applicable have not been examined in respect of:

- the entire international application  
 claims Nos. 15, 18, 19

because:

- the said international application or the said claims Nos. 15, 18, 19  
relate to the following subject matter which does not require an international preliminary examination (*specify*):

- the description, claims or drawings (*indicate particular elements below*) or said claims Nos. \_\_\_\_\_  
are so unclear that no meaningful opinion could be formed (*specify*):

- the claims, or said claims Nos. \_\_\_\_\_  
by the description that no meaningful opinion could be formed.

- no international search report has been established for said claims Nos. 15, 18, 19

- the nucleotide and/or amino acid sequence listing does not comply with the standard provided for in Annex C of the Administrative Instructions in that:

the written form

- has not been furnished  
 does not comply with the standard

the computer readable form

- has not been furnished  
 does not comply with the standard

- the tables related to the nucleotide and/or amino acid sequence listing, if in computer readable form only, do not comply with the technical requirements provided for in Annex C-6(b) of the Administrative Instructions.

- See Supplemental Box for further details.

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

International application No.  
**PCT/JP2005/005514**

Box No. V	Reasoned statement under Rule 43bis(1)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement																			
<p><b>1. Statement</b></p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%;">Novelty (N)</td> <td style="width: 60%;">Claims <u>1-14, 16, 17, 20-22</u></td> <td style="width: 20%; text-align: right;">YES</td> </tr> <tr> <td>Claims</td> <td>_____</td> <td style="text-align: right;">NO</td> </tr> <tr> <td>Inventive step (IS)</td> <td>Claims <u>1-14, 16, 17, 20-22</u></td> <td style="text-align: right;">YES</td> </tr> <tr> <td>Claims</td> <td>_____</td> <td style="text-align: right;">NO</td> </tr> <tr> <td>Industrial applicability (IA)</td> <td>Claims <u>1-14, 16, 17, 20-22</u></td> <td style="text-align: right;">YES</td> </tr> <tr> <td>Claims</td> <td>_____</td> <td style="text-align: right;">NO</td> </tr> </table>			Novelty (N)	Claims <u>1-14, 16, 17, 20-22</u>	YES	Claims	_____	NO	Inventive step (IS)	Claims <u>1-14, 16, 17, 20-22</u>	YES	Claims	_____	NO	Industrial applicability (IA)	Claims <u>1-14, 16, 17, 20-22</u>	YES	Claims	_____	NO
Novelty (N)	Claims <u>1-14, 16, 17, 20-22</u>	YES																		
Claims	_____	NO																		
Inventive step (IS)	Claims <u>1-14, 16, 17, 20-22</u>	YES																		
Claims	_____	NO																		
Industrial applicability (IA)	Claims <u>1-14, 16, 17, 20-22</u>	YES																		
Claims	_____	NO																		
<p><b>2. Citations and explanations:</b></p> <p>1. WO 99/28321 A1</p> <p>Claims 1-14, 16, 17, 20-22</p> <p>The inventions described in claims 1-14, 16, 17, 20-22 do not appear to involve an inventive step based on document 1.</p> <p>Document 1 describes a compound represented by a general formula (I) useful as an anti-virus agent, anti-cancer agent, and immunodeficiency therapeutic agent, and a producing method thereof.</p> <p>Here, according to the definition of substituents in the above general formula (I), R<sub>2</sub> can be a substitute lower alkyl group, and as a substituent of the substituent lower alkyl group, a carboxyl group, lower alkoxy carbonyl group, and the like are listed; therefore, a compound of the general formula (I) having such substituents could be easily conceived of by a party skilled in the art.</p> <p>Thus, based on the description in the specification of the present application, particularly embodiment 23, table 57, the compound of the present application cannot be found to demonstrate particular effects compared to the compound described in document 1.</p>																				

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

International application No <b>PCT/JP2005/005514</b>
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Box No. VI	Certain documents cited		
1. Certain published documents (Rule 43bis I and 70.10)			
Application No Patent No	Publication date (day/month/year)	Filing date (day/month/year)	Priority date (valid claim) (day/month/year)
<b>WO 2004/029054 A1</b> [EX]	<b>08.04.2004</b>	<b>26.09.2003</b>	<b>27.09.2002</b>
2. Non-written disclosures (Rule 43bis.I and 70.9)			
Kind of non-written disclosure	Date of non-written disclosure (day/month/year)	Date of written disclosure referring to non-written disclosure (day/month/year)	